

REMARKS

The Examiner's continued attention to the present application is noted with appreciation. The Examiner rejects claims 1, 6, 7, and 9 under 35 U.S.C. 102(b) as being anticipated by Hojyo. The Examiner also rejected the remainder of the claims under 35 U.S.C. 103(a) as being unpatentable over Hojyo in view of other cited references. Such rejections are respectfully traversed, especially as to the claims as amended. On page 13 of the Final Office Action the Examiner states that Hojyo teaches all of the structural limitations recited in the claims. The claims have been amended to clarify that the cell of the present invention is a rotary flow-through cell. The apparatus of Hojyo does not comprise a rotary flow-through cell; rather, Hojyo describes a batch process in which the electrolyte is depleted; no fresh electrolyte is continuously circulated as with a rotary flow-through cell. Further, the present claims as amended are directed to a rotary flow through apparatus that can impart sufficient centrifugal force to plate sub-20 micron particles.

The relative motion of Hojyo is sufficient to plate macroscopic objects, such as 1mm to 10mm diameter screws (column 3, lines 23-24). This is partly because Hojyo is not a flow through device, unlike the present invention. Therefore Hojyo does not have to overcome the hydrodynamic shear force of the electrolyte flowing through the cell. Even if Hojyo were a flow through cell, macroscopic objects do not require particularly large centrifugal forces to pin them to the plating cell wall. In contrast, a primary object of the present invention is to uniformly plate ultra-fine submicron or nanometer powders. Such powders would not be uniformly platable using the apparatus disclosed in Hojyo because it cannot generate enough centrifugal force to adhere powder particles to the plating cell wall. This is due to both the need to overcome hydrodynamic shear forces, which are far more predominating for small powders, and due to the necessity for making sure all powder is out of solution and uniformly coating the plating cell wall.

Thus, none of the cited references teach the plating of sub-20 micron particles, so the combinations of references cited by the Examiner do not teach all of the limitations of the present claims as amended.

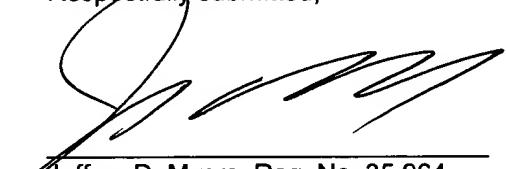
In view of the above amendments and remarks, it is respectfully submitted that all grounds of rejection and objection have been traversed. It is believed that the case is now in condition for allowance and same is respectfully requested.

If any issues remain, or if the Examiner believes that prosecution of this application might be expedited by discussion of the issues, the Examiner is cordially invited to telephone the undersigned attorney for Applicant at the telephone number listed below.

Being filed herewith is a Petition for Extension of Time to January 31, 2004, which is the first business day after January 29, 2004, with the appropriate fee. Authorization is given to charge payment of any additional fees required, or credit any overpayment, to Deposit Acct. 13-4213. A duplicate of the Petition paper is enclosed for accounting purposes.

Respectfully submitted,

By:


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